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<div>Kyle Eppele Rockwell Collins Inc. 400 Collins Rd NE Cedar Rapids, IA 52498</div>				
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**BEFORE THE BOARD OF PATENT APPEALS
AND INTERFERENCES**

Application Number: 09/494,198
Filing Date: January 28, 2000
Appellant(s): MITCHELL, JAMES P.

MAILED

FEB 05 2008

Technology Center 2600

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For Appellant

EXAMINER'S ANSWER

This is in response to the appeal brief filed 11/19/2007 appealing from the Office action mailed 03/07/2007.

(1) Real Party in Interest

A statement identifying by name the real party in interest is contained in the brief.

(2) Related Appeals and Interferences

The following are the related appeals, interferences, and judicial proceedings known to the examiner which may be related to, directly affect or be directly affected by or have a bearing on the Board's decision in the pending appeal:

Appeal No. 2005-1821

Application No. 09/494,198 (this case)

(3) Status of Claims

The statement of the status of claims contained in the brief is correct.

(4) Status of Amendments After Final

The appellant's statement of the status of amendments after final rejection contained in the brief is correct.

(5) Summary of Claimed Subject Matter

The summary of claimed subject matter contained in the brief is correct.

(6) Grounds of Rejection to be Reviewed on Appeal

The appellant's statement of the grounds of rejection to be reviewed on appeal is correct.

(7) Claims Appendix

The copy of the appealed claims contained in the Appendix to the brief is correct.

(8) Evidence Relied Upon

U.S. 6,477,152	Hiett	11/05/2002
U.S. 6,314,572	LaRocca et al.	11/06/2001

(9) Grounds of Rejection

The following ground(s) of rejection are applicable to the appealed claims:

Claims 1-2, 4-9, 11-14, 16-17 are rejected under 35 U.S.C. 103(a) as being unpatentable over Hiatt (U.S. 6,477,152). Claims 3, 10, and 15 are rejected under 35 U.S.C. 103(a) as being unpatentable over Hiatt in view of LaRocca et al (U.S. 6,314,572). This rejection is set forth in the prior Office Action, mailed on 03/07/2007.

Beginning of prior Office Action:

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

1. **Claims 1-2, 4-9, 11-14, 16-17** are rejected under 35 U.S.C. 103(a) as being unpatentable over Hiatt ("Hiatt"; Patent No. 6,477,152).

Consider **claim 1**. Hiatt teaches the apparatus and method for data communications for a mobile platform (figures 3-5, 7, detailed descriptions, abstract), comprising a very low range (column 9 lines 28-31, "infrared signals") broadcast receiver located on the mobile platform (figure 5, element 506), and

a computer network (figure 5, router 308, LAN 304 and user interface 302) including at least one terminal on the mobile platform (columns 4-5, specifically lines 22-31 of column 5), the terminal providing Internet access through the direct broadcast receiver (column 1 lines 40-57, column 2 lines 59-67).

However, Hiatt does not explicitly disclose that the received signals are transmitted from within a very short range.

However, it would have been obvious that the teachings of Hiatt would have suggested to an artisan that the in-airport ground-based transmitter, transmits, inter alia, over a very low range less than a few meters). Since the ground-based system is intended for use with aircraft operating within the airport area, and that an artisan would have considered it obvious to operate the ground-based airport LAN with aircraft near or at a gate of the airport, communicating, using cellular or infrared communications, etc., with the aircraft receiver 106, via interface 506, over distances as short as less than a few meters. That is, from the disclosure of a ground-based system operating within 1000 feet of the airport, would flow from the disclosure that it would have been obvious to operate the system of Hiatt from 1000 feet down to zero feet or within a few meters.

As the disclosure of Hiatt would have suggested to an artisan a range that overlaps the range of the claim, according to *In re Malacari*, 499 F.2d 1297, 1302, 182 USPQ 549, (CCPA 1974), an overlapping range is at least *Prima facie* obvious.

Regarding **claim 8**, this claim includes all the limitations of claim 1 and further specifies “a distance of less than a few meters the direct broadcast receiver being limited to receiving signals transmitted from within a very short range”. Claim 8 is similarly rejected with the reasons set forth above.

Regarding **claims 2 and 9**, Hiatt discloses that the Internet access is interactive access for providing commands (column 3 lines 4-15).

Regarding **claims 4 and 11**, Hiatt further discloses that the mobile platform is a boat (column 2, specifically lines 55-58).

Regarding **claims 5 and 12**, Hiatt further discloses that the mobile platform is an automobile (column 2, specifically lines 55-58).

Regarding **claims 6 and 13**, Hiatt further discloses that the mobile platform is a train (column 2, specifically lines 55-58).

Regarding **claims 7 and 14**, Hiatt further discloses that the mobile platform is an aircraft (column 2, specifically lines 55-58, figures 3-5).

Regarding **claims 16-17**, Hiatt further discloses that the commands are forwarded to an Internet service provider and the Internet service provider responds to the commands via the direct broadcast receiver (column 1 lines 40-58).

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

2. **Claims 3, 10 and 15** are rejected under 35 U.S.C. 103(a) as being unpatentable over Hiett ("Hiett"; Patent No. 6,477,152) in view of LaRocca et al. ("LaRocca "; Patent No. 6,314,572).

Regarding **claims 3 and 10**, Hiett discloses the invention including the internet connection via a satellite transmission (figures 3-5) but does not explicitly disclose that the communication system includes a back channel transmitter. In an analogous art, LaRocca teaches a method and apparatus for providing subscription on demand services for an interactive information distribution system. LaRocca further discloses that the communication system includes a back channel transmitter (figure 2, block 208, column 6 line 57 to column 7 line 65).

Since the system of Hiett is about an onboard entertainment system with user interactive control; and since LaRocca is also deals with an interactive information distribution system, it would have been obvious to one of ordinary skill in the art, at the time the invention was made to use, within the interactive onboard entertainment system of Hiett, the back channel transmitter, as taught by LaRocca in order for a user to interactively send control command(s) to the system to obtain the desired information such as which program (channel) to watch.

Regarding **claim 15**, since the system of Hiett is about an onboard entertainment system with user interactive control using the internet connection from the mobile platform to a terrestrial receiver (figures 3-5 of Hiett); and since LaRocca also deals with an interactive information distribution system including and the back channel transmitter (figure 2 of LaRocca) for the interactive commands. It would have been obvious to use the interactive system of Hiett to send commands to the internet via the terrestrial receiver utilizing the interactive system with back channel transmitter of LaRocca.

Allowable Subject Matter

3. **Claims 18-28** are allowed following the remarks presented by Applicant filed 12/19/03 (paper number 7) pages 9-12.

End of prior Office Action

(10) Response to Argument

Appellant asserts on pages 9-10 regarding claims 1 and 8 of group 1:

The claims of group 1 are not properly rejected with respect to the cited reference under 35 U.S.C. § 103(a) because Hiett fails to disclose, teach or suggest each and every element of the claims in groups 1....

...Hiett does not disclose, suggest or motivate the subject matter recited in independent Claims 1 and 8 of group 1. Specifically, Hiett does not disclose, suggest or

motivate a very low range direct broadcast receiver located on the mobile platform and limited to receiving signals transmitted from within a very short range, as recited in independent Claim 1. The Examiner did not articulate any teaching or suggestion of a broadcast receiver being limited to receiving signals transmitted from within a very short range. In fact, the Examiner never addressed this issue even after the Applicant stated:

Claims 1 and 8 were previously amended to recite that the direct broadcast very low range receiver is 'limited to receiving signals transmitted from within a very short range' ... [t]his limitation was not addressed by the Examiner in the received Office Action. (Office Action Response dated 9/28/06, page 6, lines 10-14).

Examiner respectfully disagrees.

The Examiner rejected claims 1 and 8 based on the 35 U.S.C. 103(a) rejection that the invention is being unpatentable over Hiett. The deficiency in Hiett (i.e. "the received signals are transmitted from within a very short range.") was supported by the reasoning and motivations given by the decision by the Board of Appeal and Interference (Decision on 01/19/2006, pages 4-13, specifically on page 11, the Board of Appeal and Interference stated that : "...That is, from the disclosure of a ground-based system operating within 1000 feet of the airport, it would flow from the disclosure that it would have been obvious to operate the system of Hiett from 1000 feet down to zero feet or within a few meters. As the disclosure of Hiett would have suggested to an artisan a range that overlaps the range of the claim, according to In re Malaqari, 499

F.2d 1297, 1302, 182 USPQ 549, 553 (CCPA 1974), an overlapping range is at least prima facie obvious...".

Therefore, the Examiner is not persuaded that Hiett cannot be modified in anyway the meet the requirement of a "very limited/short distance".

Appellant asserts on page 10 regarding claims 1 and 8 of group 1:

Claims 1 and 8 recite that the direct broadcast receiver is configured to be limited to receiving signals transmitted from within a very short range. Claim 1 recites a "very low range direct broadcast receiver..., limited to receiving signals transmitted from within a very short range." Claim 8 recites "providing Internet data to the computer network on the mobile platform via the direct broadcast receiver from a distance of less than a few meters the direct broadcast receiver being limited to receiving signals transmitted from within a vary short range."

Applicant defined short or low range in the application, stating: "Direct transmitter 66 and transmitter. 70 are preferably short range communication units. System 30 can be designed so that transmitters 66 and 70 only require a range of several feet or a few meters." See Specification, page 16, lines 11-13. Further, the application states "Wireless gatelink 130 can be a very short-range (several feet to a few meters) high-speed radio data link or high-speed optical data link." See Specification, page 22, lines 12-15. The present application also states "In this way, several mobile platforms 35 can communicate to several docking areas 37 without interference and without utilizing

different frequency ranges. In addition, utilizing short-range devices for receivers 60 and 72 and transmitter 70 allows smaller antennas ..." See Specification, page 16, lines 13-17.

Examiner respectfully disagrees.

On page 22 of the Specification, not only the Specification specifies that the "Wireless gatelink 130 can be a very short-range (several feet to a few meters) high-speed radio data link or high-speed optical data link" (lines 13-14); it also specifies that "Alternatively, wireless gate link 130 can be a longer range system capable of communicating with aircraft 120 when it is taxiing or roving" (lines 10-12). Therefore, the disclosure of Hiett would have suggested to an artisan a range that overlaps the range of the claim as specified in claims 1 and 8.

Examiner is also not persuaded by Appellant's assertion that "utilizing short-range receivers 60 and 73 and transmitter 70 allows smaller antennas. Firstly because applicant's specification makes clear that the invention can be used in longer distances as noted above and secondly, no antenna or antenna size is recited in Appellant's claims.

Appellant asserts on page 11 regarding the Advisory Action.

In the Advisory Action, the Examiner stated that "from the disclosure [Hiett] of a ground-based system operating within 1000 feet of the airport, it would flow from the disclosure that it would have been obvious to operate the system of Hiett from 1000

down to zero feet or within a few meters." However, Hiatt does not show, describe or suggest short range direct broadcast receiver "limited to receiving signals transmitted from within a very short range," as recited in independent claims 1 and 8. The receiver 106 in Hiatt is not disclosed or suggested to be limited to receiving signals transmitted from within a very short range. Indeed, the only range discussed is a 1,000 foot range associated with a wireless LAN. See Hiatt, col. 9, lines 23-26. The 1,000 foot range disclosed in Hiatt shows that the receiver cannot be limited to receiving signals within a very short range, such as, several feet to a few meters. The very short range limitation of several feet to a few meters was previously defined by the Board of Patent Appeals and Interferences. (see Decision on Appeal dated 1/19/2006, page 8, lines 15-19). The system disclosed in Hiatt could not operate over a 1,000 foot range with the receiver being limited to receiving signals transmitted within several feet to a few meters of the direct broadcast receiver. A person skilled in the art would not have used a system that can transmit signals over a 1,000 foot range with receivers that could not receive these signals because these signals were not transmitted from within several feet to a few meters. Therefore, the direct broadcast receiver being limited to receiving signals transmitted from within a very short range recited in independent Claims 1 and 8 is not disclosed, taught or suggested by Hiatt.

Examiner respectfully disagrees.

The Board of Patent Appeals and Interferences (see Decision on Appeal dated 1/19/2006, page 8, lines 15-19) agreed with Appellant in one thing, that is the

limitation "short range" in the claim language to be the range of several feet to a few meters and reversed the Examiner decision based on the 102 rejection presented to the Board at the time (11/03/2004). Even though the Board of Appeals and Interferences reversed the rejection of claims 1, 2, 4-9, 11-14, 16 and 17 under 35 U.S.C. § 102(e) because they were not anticipated by Hiatt, the Board of Appeals and Interferences find that the teachings of Hiatt would have suggested to an artisan that the in-airport ground-based transmitter, transmits, inter alia, over a very low range (of less than a few meters). (Please see Decision on 01/19/2006, pages 4-13, specifically page 11).

Appellant asserts on pages 12-13 regarding the combination of Hiatt and LaRocca.

The claims of group 2 are not properly rejected with respect to the cited references under 35 U.S.C. §103(a) because the combination of Hiatt and LaRocca does not teach or suggest each and every element of the claims in group 2.

The claims of group 2 are patentable under 35 U.S.C. §103(a) over Hiatt in view of LaRocca because, even if combined, the combination of Hiatt and LaRocca does not teach or suggest the subject matter of the claims. As stated above, Hiatt fails to teach or suggest providing a direct broadcast receiver being limited to receiving signals transmitted from within a very short range. LaRocca describes a method and apparatus for providing subscription on demand services for an interactive information distribution system using a back channel transmitter

Examiner respectfully disagrees.

In this case, LaRocca was presented to fulfill the limitation "back channel transmitter" as required by claim 3 and not for the "...direct broadcast receiver being limited to receiving signals transmitted from within a very short range...", this deficiency was presented by the Examiner in the rejection of the independent claim 1 using 35 U.S.C. 103(a) as discussed above.

(11) Related Proceeding(s) Appendix

Copies of the court or Board decision(s) identified in the Related Appeals and Interferences section of this examiner's answer are provided herein.

For the above reasons, it is believed that the rejections should be sustained.

Respectfully submitted,

Appeal Conference held on 01/16/2008

Conferees:

Ed URBAN

Supervisory Patent Examiner


A/U 2618


EDWARD F. URBAN
SUPERVISORY PATENT EXAMINER
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Application/Control Number:
09/494,198
Art Unit: 2618

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The opinion in support of the decision being entered today was not written for publication and is not binding precedent of the Board.

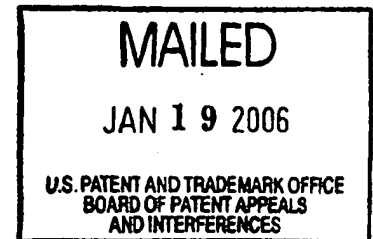
UNITED STATES PATENT AND TRADEMARK OFFICE

BEFORE THE BOARD OF PATENT APPEALS
AND INTERFERENCES

Ex parte JAMES P. MITCHELL

Appeal No. 2005-1821
Application No. 09/494,198

ON BRIEF



Before RUGGIERO, GROSS, and LEVY, Administrative Patent Judges.
LEVY, Administrative Patent Judge.

DECISION ON APPEAL

This is a decision on appeal from the examiner's final rejection of claims 1-17.

We REVERSE, and enter a new ground of rejection under 37 CFR § 41.50(b).

BACKGROUND

The appellant's invention relates to a system and method for internet access on a mobile platform (specification, page 1).

Best Available Copy

Claim 1 is representative of the invention, and is reproduced as follows:

1. A communication system for a mobile platform, comprising:
 - a direct broadcast very low range receiver located on the mobile platform; and
 - a computer network including at least one terminal on the mobile platform, the terminal providing Internet access through the direct broadcast receiver.

The prior art references of record relied upon by the examiner in rejecting the appealed claims are:

LaRocca et al. (LaRocca)	6,314,572	Nov. 6, 2001 (filed May 28, 1999)
Hiett	6,477,152	Nov. 5, 2002 (filed Dec. 30, 1998)

Claims 1, 2, 4-9, 11-14, 16 and 17 stand rejected under 35 U.S.C. § 102(e) as being anticipated by Hiatt.

Claims 3, 10 and 15 stand rejected under 35 U.S.C. § 103(a) as being unpatentable over Hiatt in view of LaRocca.

Rather than reiterate the conflicting viewpoints advanced by the examiner and the appellant regarding the above-noted rejections, we make reference to the answer (mailed November 3, 2004) for the examiner's complete reasoning in support of the rejections, and to the brief (filed September 8, 2004) for the appellant's arguments thereagainst.

Only those arguments actually made by appellant have been considered in this decision. Arguments which appellant could have made but chose not to make in the brief have not been considered. See 37 CFR § 41.37(c)(1)(vii)(eff. Sept. 13, 2004).

OPINION

In reaching our decision in this appeal, we have carefully considered the subject matter on appeal, the rejections advanced by the examiner, and the evidence of anticipation and obviousness relied upon by the examiner as support for the rejections. We have, likewise, reviewed and taken into consideration, in reaching our decision, appellant's arguments set forth in the brief along with the examiner's rationale in support of the rejections and arguments in rebuttal set forth in the examiner's answer.

Upon consideration of the record before us, we make the determinations which follow. We observe at the outset that appellant (brief, page 4) has included all of the claims rejected under 35 U.S.C. § 102(e) as a single group, with claim 1 indicated as representative of the group. In addition, appellant has indicated that all of the claims rejected under 35 U.S.C.

§ 103(a) as a single group, with claim 3 indicated as representative of the group. Notwithstanding the groupings provided, appellant refers to both independent claims 1 and 8 in the arguments regarding the claims rejected under 35 U.S.C. § 102(e). Accordingly, we will separately address claim 8 to the extent that arguments presented apply to this claim. In addition, we observe that the claims of group 2 have been argued as a group. Accordingly, we will consider claim 3 as representative of this group. We begin with the rejection of claim 1. It is well settled that if a prior art device inherently possesses the capability of functioning in the manner claimed, anticipation exists whether there was a recognition that it could be used to perform the claimed function. See, e.g., In re Schreiber, 128 F.3d 1473, 1477, 44 USPQ2d 1429, 1431-32 (Fed. Cir. 1997).

The examiner's position (answer, pages 4 and 5) is inter alia, that Hiett discloses a very low range infrared signal broadcast receiver located on the mobile platform. Appellant asserts (brief, page 8) that "Hiett does not recite a very low range direct broadcast receiver or providing Internet data to the

computer network via the direct broadcast receiver from a distance of less than a few meters." It is asserted (brief, pages 8 and 9) that:

Applicant defines short or low range in the application, stating: "Direct transmitter 66 and transmitter 70 are preferably short range communication units. System 30 can be designed so that transmitters 66 and 70 only require a range of several feet or a few meters". . . . Further, the application states "Wireless gatelink 130 can be a very short-range (several feet to a few meters) high-speed radio data link or high-speed optical data link" The present application also states "In this way, several mobile platforms 35 can communicate to several docking areas 37 without interference and without utilizing different frequency ranges. In addition, utilizing short-range devices for receivers 60 and 72 and transmitter 70 allows smaller antennas."

It is argued (brief, page 9) that receiver 106 in Hiett is not disclosed as being a very short range receiver, and that the only range discussed is a 1000 foot range. It is further argued (id.) that infrared signals may potentially be received from a significant distance, in particular, more than a few meters. Appellant additionally asserts (id.) that:

Further, a wireless LAN that is configured to broadcast within a 1,000 foot range cannot provide the advantages described in the present application. For example, where multiple transmitters, as described in the present application, are used in the system of Hiett the 1,000 foot range would cause interference and require the use of different frequency

ranges. Similarly, the 1,000 foot range would require larger antennas to receive the signal."

We begin with claim construction. It is an essential prerequisite that the claimed subject matter be fully understood. Analysis of whether a claim is patentable over the prior art begins with a determination of the scope of the claim. The properly interpreted claim must then be compared with the prior art. Claim interpretation must begin with the language of the claim itself. See Smithkline Diagnostics, Inc. v. Helena Laboratories Corp., 859 F.2d 878, 882, 8 USPQ2d 1468, 1472 (Fed. Cir. 1988). Accordingly, we will initially direct our attention to appellant's claim 1 to derive an understanding of the scope and content thereof. The general claim construction principle that limitations found only in the specification of a patent or patent application should not be imported or read into a claim must be followed. See In re Priest, 582 F.2d 33, 37, 199 USPQ 11, 15 (CCPA 1978). One must be careful not to confuse impermissible imputing of limitations from the specification into a claim with the proper reference to the specification to determine the meaning of a particular word or phrase recited in a claim. See E.I. Du Pont de Nemours & Co. v. Phillips Petroleum

Co., 849 F.2d 1430, 1433, 7 USPQ2d 1129, 1131 (Fed. Cir.), cert. denied, 488 U.S. 986 (1988).

What we are dealing with in this case is the construction of the limitations recited in the appealed claims. As stated by the court in In re Hiniker Co., 150 F.3d 1362, 1369, 47 USPQ2d 1523, 1529 (Fed. Cir. 1998) "[t]he name of the game is the claim." Claims will be given their broadest reasonable interpretation consistent with the specification, and limitations appearing in the specification are not to be read into the claims. In re Etter, 756 F.2d 852, 858, 225 USPQ 1, 5 (Fed. Cir. 1985).

We find that the language "from a distance of less than a few meters" does not appear in claim 1. However, claim 1, does recite that the direct broadcast receiver is a very low range receiver. From the definitions found in the specification, as noted by appellant (brief, page 8), of "short or low range" we note that the term low does not appear in the definitions provided, or from our review of the specification. However, the specification does refer to short range (page 16) and very short range (page 22). In these descriptions found in the specification, we note that the direct transmitter 66 and transmitter 70 are "preferably" short range communications units, and that the system "can" be designed so that the transmitters

only require a range of several feet or a few meters. From these disclosures we find that the direct transmitter 66 and transmitter 70, while preferably short range communication units, are not limited to short range units. In addition, from the language that the transmitters "can" be designed to only require a range of several feet to a few meters, we find that it is not a requirement that the transmitters 66 and 70 are limited to transmitting over a few meters. However, we find from the language on page 22 of the specification that wireless gatelink 130 "can be a very short range (several feet to a few meters)." We find from this language that wireless gatelink 130 can be a very short range of several feet to a few meters. We further find that although the gatelink is not limited to a very short range, if it is a very short range, the transmission is for a very short distance of several feet to a few meters. From the language of claim 1 of "a direct broadcast very low range receiver" we find that the language, by virtue of the express definition in the specification, is limited to several feet to a few meters. In addition, we note that we consider "low" to mean the same, in this instance, as "short."

Thus, the issue becomes whether Hiett teaches the very low range (several feet to a few meters) direct broadcast receiver recited in claim 1.

Turning to Hiett, the language in question (col. 9, lines 18-31) recites:

Further, referring to FIG. 5, first communication medium 104 may also include a ground-based LAN 512 and network system 314. In accordance with this embodiment, ground-based LAN station 512 preferably includes a transmission and receiving unit capable of communicating with the LAN interface 506. In accordance with one embodiment, ground-based LAN 512 is an airport LAN configured to communicate with aircraft operating in the airport area, for example within 1000 feet for a wireless LAN 512. The LAN interface 506 may communicate with the LAN 512 in any appropriate manner, including direct electrical or optical connection, acoustic signals, optical signals, infrared signals, microwave signals, cellular communications, or any other suitable communication technique.

From this disclosure, we find that the ground-based local area network (LAN) is an airport LAN that communicates with aircraft operating in the airport area, for example within 1000 feet for a wireless LAN. Thus, LAN interface 506 on the mobile platform (airplane) communicates with airport LAN 512 in any appropriate manner, including direct electrical or optical connection, infrared signals, cellular communications, etc. From the disclosure of Hiett, we find that airport LAN 512 is for short

range communications, and that compared to communications between the airplane and DBS satellite 210, the range between the airplane and the airport ground-based LAN is a short (or low) range. However, claim 1 recites "a very low range." In Hiett, the range of within 1000 feet does not specify a lower limit to the range. Even with a direct electrical connection between the terminal LAN 512 and the aircraft receiver 106, via aircraft interface 506, there is no disclosure in Hiett that a cable providing a direct connection between the aircraft with the terminal LAN would only be several feet to a few meters. As there is no lower range of the "within 1000 feet" specifically disclosed by Hiett, we do not find that Hiett anticipates claim 1. Similarly, we cannot sustain the rejection of independent claim 8 as the claim recites transmission from less than a few meters. The rejection of claims 1, 2, 4-9, 11-14, 16 and 17 under 35 U.S.C. § 102(e) is therefore reversed.

New Ground of Rejection

New Ground of Rejection of claims 1, 2, 4-9, 11-14, 16 and 17 under 35 U.S.C. § 103(a) as being unpatentable over Hiett.

At the outset, we make reference to the our findings, supra, with respect to Hiett. Although we reversed the rejection of

claims 1, 2, 4-9, 11-14, 16 and 17 under 35 U.S.C. § 102(e) because they were not anticipated by Hiett, we find, for the reasons which follow, that the teachings of Hiett would have suggested to an artisan that the in-airport ground-based transmitter, transmits, inter alia, over a very low range (of less than a few meters). Since the ground-based system is intended for use with aircraft operating within the airport area, we find that an artisan would have considered it obvious to operate the ground-based airport LAN with aircraft near or at a gate of the airport, communicating, using cellular or infrared communications, etc., with the aircraft receiver 106, via interface 506, over distances as short as less than a few meters. That is, from the disclosure of a ground-based system operating within 1000 feet of the airport, it would flow from the disclosure that it would have been obvious to operate the system of Hiett from 1000 feet down to zero feet or within a few meters. As the disclosure of Hiett would have suggested to an artisan a range that overlaps the range of the claim, according to In re Malagari, 499 F.2d 1297, 1302, 182 USPQ 549, 553 (CCPA 1974), an overlapping range is at least prima facie obvious.

We do agree with appellant (brief, page 5) that infrared signals can be communicated over distances significantly greater

than a few meters. As disclosed in Newton's Telecom Dictionary¹, infrared signals, even though they are generally used for distances less than 20 feet, can transmit as much as 6.312 Mbps over distances of several miles. Thus, we do not agree with the examiner (answer, page 5) that infrared signals are only used for short range communications.

We are not persuaded by appellant's assertion (brief, page 9) that a 1000 foot range would require a larger antenna to receive the signal. Firstly, applicant's specification makes clear that the invention is not limited to receiving signals transmitted a few meters, but can be larger distances. Secondly, no antenna or antenna size is recited in any of appellant's claims. In addition, as noted by the examiner (answer, page 9), the example in Hiett of within 1000 feet lists 1000 feet as an upper limit and suggests that the signals will be received that are transmitted over distances less than 1000 feet. As we stated, supra, from the disclosure that the in-airport system is for use by aircraft operating within the airport, we find a suggestion of aircraft using the system at any distance within the airport, such as at a gate, e.g., a very low range or within

¹ © 1999. A copy of the pertinent page is attached to the Decision.

a few meters. As to independent claim 8, we reject the claim for the same reasons as we reject claim 1. As to the other claims in the group, we reject these claims for the reasons provided by the examiner (answer, page 5), as the examiner has shown these features to be disclosed by Hiett.

We turn next to claims 3, 10 and 15 as being unpatentable over Hiett in view of LaRocca. At the outset, we make reference to our findings, supra, with respect to the teachings of Hiett, in our rejection of claims 1, 2, 4-9, 11-14, 16 and 17 under 35 U.S.C. § 103(a). The examiner turns to LaRocca for a teaching of using a back channel transmitter. Appellant's arguments (brief, pages 10 and 11) are based upon LaRocca not making up for the deficiencies of Hiett. We are not persuaded by appellant's arguments because of our finding that Hiett suggests, under 35 U.S.C. § 103(a) the invention of the claims from which claim 3 depends. From our review of LaRocca, we will sustain the rejection of claims 3, 10 and 15 for the reasons set forth in the examiner's answer. Accordingly, the rejection of claims 3, 10 and 15 under 35 U.S.C. § 103(a) is affirmed.

CONCLUSION

To summarize, the decision of the examiner to reject claims 1, 2, 4-9, 11-14, 16 and 17 under 35 U.S.C. § 102(e) is reversed. The decision of the examiner to reject claims 3, 10 and 15 under 35 U.S.C. § 103(a) is affirmed. This decision contains a new ground of rejection pursuant to 37 CFR § 41.50(b) (effective September 13, 2004).

37 CFR § 41.50(b) provides "[a] new ground of rejection pursuant to this paragraph shall not be considered final for judicial review."

37 CFR § 41.50(b) also provides that the appellant, WITHIN TWO MONTHS FROM THE DATE OF THE DECISION, must exercise one of the following two options with respect to the new ground of rejection to avoid termination of the appeal as to the rejected claims:

(1) *Reopen prosecution.* Submit an appropriate amendment of the claims so rejected or new evidence relating to the claims so rejected, or both, and have the matter reconsidered by the examiner, in which event the proceeding will be remanded to the examiner. . . .

(2) *Request rehearing.* Request that the proceeding be reheard under § 41.52 by the Board upon the same record. . . .

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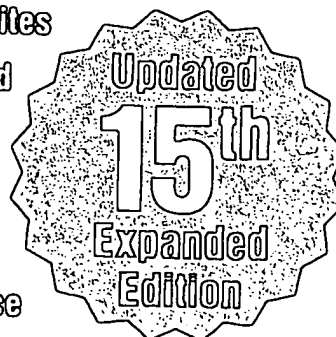
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by Harry Newton

NEWTON's TELECOM DICTIONARY

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Fifteenth Edition, Expanded and Updated
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Information Highway A term coined by Al Gore. This term was popularized by Dan Lynch, the man who started the trade publication *InfoWorld* and who was very heavily involved with Internet in the very beginning. As the term got developed and popularized, it became known as The Information Superhighway. See also Information Superhighway.

Information Outlet IO. Sort of like an AC power outlet, but more cerebral. A connecting device designed for a wall in the office (usually a wall in the office) on which horizontal wiring subsystem cable pairs terminate and which receives horizontal wiring subsystem and work location wiring. Although such devices are also referred to as information outlets, the term information outlets encompasses the integration of voice, data, and other communication services that can be supported via a premises distribution system.

Information Packet A bundle of data sent over a network. The protocol used determines the size and makeup of the packet.

Information Page Mapping See ADSI.

Information Payload 50.112 Mb/s of bandwidth allocated within each SONET STS-1 channel to carry information. Also known as STS-1 envelope capacity.

Information Processing Data to achieve a desired purpose. Also called data processing.

Information Provider A business or person providing information to the public for money. The information is typically selected by the caller through touchtones, delivered by voice processing equipment and transmitted over telephone lines, e.g., 900, 976, 970. Typically, billing for information providers' services is done by a local or long distance phone company. Sometimes the revenues for the service are split by the information provider and the phone company. Sometimes the phone company simply bills a per minute or flat charge. A typical "information provider" is a 1-900-XXXX-XXXX, which provides a service — 1-900-WEATHER. By dialing that number you can touchtone in city names and find out temperatures, weather forecasts, etc. Calling 1-900-WEATHER costs several dollars a minute.

Information Service The Telecommunications Act of 1996 defined Information Service as: The term "information service" means the offering of a capability for generating, acquiring, storing, transforming, processing, retrieving, utilizing, or making available information via telecommunications, and includes electronic publishing, but does not include any use of any such capability for the management, control, or operation of a telecommunications system or the management of a telecommunications service.

Information Signals A Bellcore definition. Information signals inform the customer or operator about the progress of the call. They are generally in the form of universally understood tones (for example, dial tone, busy, ringing) or recorded announcements (for example, intercept, all circuits busy).

Information Superhighway A very vague concept which Senator Al Gore created in the early 1990s and which gained great popularity when he became vice president and the Clinton/Gore administration started pushing the concept. The Information Superhighway is a term sufficiently vague that it can mean anything to anyone. It can mean a gigantic Internet-reaching everybody in North America, or the planet (if you're that expansive). It could just as easily mean a combination 500-channel interactive cable TV system with full on demand to every household in North America.

Somewhere in all this is the idea that easy access to large amounts of information will enrich our lives immeasurably. Who's going to get first access to it all, what the precise technical details will be, and who's going to pay for it are, naturally, minor details to be worked out. We can be assured that the details will be worked out, since the idea originated in Washington, DC., home of so many practical ideas.

Information Technology IT. A fancy name for data processing, which became management information systems (MIS), which became information technology. All the same thing, essentially. See also IT.

Information Technology District The Information Technology District (ITD) is New York City's fastest growing totally-wired community. Anchored by the New York Information Technology Center @ 55 Broad Street and sharing the Downtown Business Improvement District's boundaries of City Hall to the southern tip of Manhattan, the ITD serves as the headquarters for Silicon Alley. The ITD is home to more than 250 IT companies, from web page developers to financial modeling firms. According to promotion from ITD, these companies are quickly emerging as the City's prime economic generators, creating jobs and innovative products, and serving as pioneers in the ongoing revitalization of Downtown into a 24-hour, 21st Century global community.

Information Technology Services I got this email from Ferrell Mallory, Managing Director, IT Operations Brigham Young University, Salt Lake City. "Remember all that preaching you did years back about telecom operations getting swallowed up by MIS types? Well, I'm there again. I was in and out of our campus MIS operation 14 years ago when they decided my telecom operation was a "major misfit" until the campus became so dependent upon the data network we installed - mostly from telecom revenues - AND everyone blamed the network if anything vaguely related to the network was inoperative, e.g., network infrastructure, servers, clients, keyboards, electrical power, air conditioning, etc., etc. So, we reorganized again, this time along functional lines instead of technology and I'm back in what we call "Information Technology Services". I still have the telephone system and data communication system but have added servers, and all campus instructional media systems and services.

Information To Go A term coined by Digital Equipment Corporation to refer to the transmission of data over airwaves instead of fixed wires.

INFOSEC A military term for information systems security. See NSA.

InfoSpace A service that helps surfers locate listings of people, businesses, government offices, toll-free numbers, fax numbers, e-mail addresses, maps and URLs, all on one Web site. InfoSpace has developed a patent pending technology that integrates all of these services. www.infospace.com

Infostrada SpA A new phone company which started service in July 1998, competing against Italy's erstwhile monopoly, Telecom Italia. Infostrada is controlled by Olivetti SpA and the German company, Mannesmann AG.

Infrared The band of electromagnetic wavelengths between the extreme of the visible light spectrum (about 0.75 um) and the shortest microwaves (about 100 um). This portion of the electromagnetic spectrum is used in some fiber-optic transmission systems, but more commonly for airwave communications. In such application, the system typically consists of a two transmitter/receivers. The infrared light signal is transmitted through a focused lens to a collecting lens in the receiving device. Transmission rates of as much as

6.312 Mbps can be achieved over distances of as much as several miles. Typically deployed in campus environments or other very short-haul applications where cabled systems are not possible or practical, infrared offers the advantage of no FCC licensing requirements, thereby sometimes making it preferable to microwave.

Infrared also is commonly used for short haul (up to 20 feet) through-the-air data transmission. With the adoption of new infrared standards at a meeting of over 50 manufacturers in June 1994, many PC devices will begin sporting something called the "Infrared Serial Data Link" (IRDA) with speeds up to 1.5 Mbps. This standard is designed to ensure that products sporting this link will work together and interchangeably.

Infrared Data Association See IRDA.

Infrared Fiber Optical fibers with best transmission at wavelengths of 2 um or longer, made of materials other than silica glass.

Infrared Serial Data Link As a result of a meeting at Microsoft of over 50 manufacturers in June 1994, many PC devices will begin sporting something called the "Infrared Serial Data Link," an infrared through-the-air (up to 20 feet) link with speeds up to 1.5 million bytes per second. This standard is designed to insure that products sporting this link will work together and interchangeably. There is now an organization called I.R.D.A., the Infrared Data Association, representing over 80 manufacturers.

Infrastructure/Telecommunications A collection of those telecommunications components, excluding equipment, that together provide the basic support for the distribution of all information within a building or campus.

ING Calling party. The ING calls the ED, or CALLED party, to set up a data transfer. ING and ED apply to any type of data transfer, including both voice and data.

Ingredient Technology See Indeo Video.

Ingress Ingress is a cable TV term. Ingress occurs when strong outside signals leak into a CATV coaxial cable and interfere with the signal quality inside the home and nearby homes. Picture a car driving along outside a house. The car has a strong CB radio. It sends the signal out. It is picked up by the coaxial CATV cable in the house, which then sends it to nearby houses. The primary cause of ingress is cheap wiring and/or loose connectors. But the interfering signal is caused by radio transmitters of all types (including short wave transmitters), electrical appliances, motors with brushes, light dimmers or speed controls on toys. Leakage is really a shielding problem. The number of houses that can be affected by ingress depends on the strength of the signal and the number of service areas around a CATV node, which could be as many as 1,000. Companies like Trilithic in Indianapolis are expert in measuring ingress. See also Leakage.

Inheritance A term from object oriented programming. Data abstraction can be carried up several levels. Classes can have super-classes and subclasses. In moving to a level of greater specificity, the application developer has the option to retain some attributes and methods of the super-class, while dropping or adding new attributes or methods. This allows greater flexibility in class definition. It is even possible in some languages to inherit from more than one parent. This is referred to as multiple inheritance. See Object Oriented Programming.

INIC ISDN Network Identification Code.

INIM ISDN Network Interface Module (INIM) is both hardware and software. It does the job of an NT-1, so the physical network interface is ISDN-U. When calls arrive, the INIM col-

lects the number dialed and Caller ID. This data is passed on to the Call Processing Module, which does the actual call handling. When you go off hook to place an outbound call, the INIM assigns an available ISDN B-channel to the call. For 'Find Me' scenarios, the INIM lets Front Desk place multiple, simultaneous out-bound calls. During data calls, the INIM constantly monitors the data transmission rate on the ISDN line. The INIM will automatically build up or tear down the second ISDN B channel from a data call to match bandwidth requirements. Because telcos charge for usage per B-channel, the INIM uses both B channels only when necessary. If both B channels are doing data when a new voice or fax call arrives, the INIM instantly tears down one of the B channels to let the new call through. Ditto for when you make an out-bound voice or fax call.

INIT An INIT is the Macintosh System 7 equivalent of a terminate and stay resident (TSR) program. An init might load to initialize a fax modem, screen saver, etc. Similar to the DOS environment, some inits conflict. When troubleshooting operating system problems, remove inits first.

Initial Address Message. IAM. A SS7 signaling message that contains the address and routing information required to establish a point-to-point telephone connection.

Initial Answer Initial answer refers to the point in time at which a computer telephony system answers an incoming call. Many computer telephony systems require significant processing to set up to answer incoming calls. For example, the system may examine the incoming ANI, DNIS, or PBX integration data to determine how to answer (which prompt to use), or where to switch the call. This can involve significant database access and processing time. Therefore, the ability to handle large number of incoming calls (especially in burst mode) may delay the initial answer. The delay from when a call reaches a computer telephony system until the computer telephony system answers the call (the initial answer) is usually a key response time to understand when testing a computer telephony system.

Initial MAC Protocol Data Unit IMPDU. A Connectionless Broadband Data Service (CBDS) term that corresponds to the L3 PDU in Switched Multimegabit Data Service (SMDS). CBDS is the European equivalent of SMDS.

Initial Period The minimum billing period on a call. For interstate or inter-LATA AT&T calls, the initial period is one minute. Some non-AT&T long distance companies have initial periods under one-minute. This also applies to local calls in Measured areas.

Initial Program Load The initial loading of generic and/or configuration software into a PBX or other phone system. The Initial Program Load is a pain in the rear end. But an even bigger pain is what happens when you lose your programming and you've forgotten to back it all up.

Initial Sequence Number ISN. Generated at each end of TCP connection to help to uniquely identify that connection.

Initialization String A group of commands sent to the modem by a communications program at start-up before the number has been dialed. Such a string tells the modem to set itself up in a way that will make it easy to correctly communicate with a distant modem.

Initialize Setting all counters, switches, addresses or contents of storage to zero at the beginning of, or at prescribed points in the operation of a computer routine or a communications transfer; a major function of "rebooting" a computer giving everything a "reset".

Initializing terminals An ISDN term. These devices

sometimes
ISDN term
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terminal to
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